A pressing question in the area of faith formation today is whether or not we are indeed forming people for a lifelong practice of the faith and celebration of the sacraments. A 2015 study by the Pew Research Center indicates that 42% of adults in the United States have left the faith of their childhood (12). In the book *Forming Intentional Disciples*, Sherry Weddell points out that the lack of attachment to one’s childhood faith is particularly significant among Catholics. She cites an earlier Pew study that showed only 30% of Americans who were raised Catholic are still attending Mass at least once a month (Weddell 24). A number of parish catechetical leaders also report declining enrollment in their parish religious education classes for age levels that are not sacramental years, suggesting that perhaps parents are perceiving less value in the curriculum offered by the parish program in non-sacramental years. In addition, parish leaders continue to be frustrated that even the families who are involved in the parish religious education program often seem to treat it as one more extra-curricular activity in which their children participate for an hour each week. Catechetical leaders are concerned about how much catechesis is happening at home, whether or not the family is attending Mass, and whether or not the faith is being lived in daily life. How can we better prepare our learners for a lifelong celebration of the faith? How can we help families live out
their vocation as domestic Church? One answer may rely in a better understanding of human development.

As a child and family psychologist, I am continually amazed by the new information we can each day about how people grow and learn. In recent years, advances in the neurosciences, especially, have contributed to our understanding of human development and the ways in which our brains integrate physical, emotional, intellectual and social experiences. As a catechist, however, I am often disappointed at how little we have integrated this rapidly growing knowledge of human development into our ministry of faith formation. In fact, our catechetical texts and methods have changed very little in the past twenty years, even as our knowledge of child development, especially at the neurobiological level, has exploded. By becoming better informed about the research in human development and family functioning, we could make learning about the faith more efficient, more effective, and better integrated into the everyday life of the individual person and the family, which after all is the goal of faith formation in the first place. Our aim is not only to help people grow in knowledge of their faith, but to equip them to live the faith in their daily lives – at home, school, work, and in their communities. We are not in the business of helping “students” master “concepts.” Rather, our vocation is that of forming lifelong disciples.

Some leaders might argue that too much attention is already paid to faith formation in childhood and adolescence, and that the landscape will never change until we place our primary focus on adult faith formation. In a certain sense this is true, for it is adults who are charged with forming children, and how will we ever
form a generation of children effectively if the adults are not intentional disciples themselves? On the other hand, it is the interaction of the individual and his or her environment through the course of developmental milestones that shape the man or woman he or she will become; therefore, the way to have a church of mature adult Catholics is to raise a generation of mature adult Catholics.

**Neuroplasticity and Brain Development**

One of the challenges in my own field of clinical psychology is that it is more difficult to teach adults new attitudes, behaviors and skills than it is to teach them to children (one reason why I became a child psychologist)! This difference between children and adults is due in part to brain development. The brain of a young child is full of infinite possibilities. Neurobiologists call this “neuroplasticity” – the malleability of the brain early in life. As we grow and change, certain areas of our brains become less malleable. It’s why we have more difficult learning a second language as adults than as children. We can always learn new things, but certain areas of our brains become more “fixed” over time. On the other hand, even as some doors begin to close in the brain, new ones open. Capacity for abstract thinking usually does not develop until about age 12 or 13, and that capacity grows as we enter adulthood. We also continue to grow in our vocabulary and verbal skills, such that, all things being equal, an older adult might be a much more eloquent writer than a college student. These differences are reflective of developmental differences that are mostly related to brain development. That isn’t to suggest that this process is all biological. On the contrary, child development experts like Dr. Pam Schiller (former Head of the Early Childhood Department at the University of Houston) point
out that development is based on a complex interaction between genes and environment. Early experiences, Schiller states, contribute significantly to the structure of the brain and its capacities (Schiller 8).

**Windows of Opportunity**

Early interactions, how we relate and respond, directly affect how the brain is wired. Brain development is non-linear. Learning continues across the lifespan, but there are what Schiller calls “windows of opportunity.” These are times when connections in a certain area of brain are occurring at the most rapid rate, meaning that an individual might be particularly interested in and/or capable of learning a particular concept. This is similar to the theories of Russian Developmental theorist Lev Vygotsky. Vygotsky lived and worked in the early 20th century, long before scientific advancements gave us a view of the developing brain, but his observations of development and learning led him to propose that there are zones of proximal development – domains of learning from which a learner is just ready to master a concept with some support and guidance (Vygotsky 87). If we introduce a concept before it is within the zone of proximal development, it might just be frustrating to the learner, because he or she is not yet developmentally ready, but if we wait until after this developmental window, the material might be less engaging or exciting to the learner.

Since Vygotsky’s time, exciting discoveries in human development and neuroscience have given us many insights into the scientific basis for his theory. Based on observations of the growing brain, clinical neuropsychiatrist Dr. Bruce Perry, an Adjunct Professor of Psychiatry and Behavioral Sciences at the Feinberg
School of Medicine in Chicago, Illinois, has articulated a process of *neurosequential brain development* that summarizes how the brain grows in stages and how various skills are related to this growth (Perry 27-52). For example, the lower regions of the brain are the most developed when a child is born. This is because they control involuntary functions essential for life, such as breathing and circulation. The next areas of the brain to develop are the ones that control drives, such as sleep and hunger. This is why the sleep habits of newborn infants can be so dysregulated, but get more consistent over time. Next is the part of the brain responsible for attachment and emotions. This area of the brain is growing most rapidly in the first 5 years of life. The next area of the brain to grow is the cerebral cortex, which continues to develop into adulthood. The last area of the brain to fully develop, the pre-frontal cortex, is responsible for attention, impulse control, and other executive functions. This part of the brain usually is not fully developed until the early twenties.

**Developmentally-Responsive Catechesis**

New discoveries in brain science and other aspects of human development have implications for our work as catechists. By capitalizing on what we now know about how our learners grow, and structuring our learning experiences accordingly, we can make faith formation across the lifespan more engaging, more efficient, and more effective -- dramatically increasing the likelihood that individuals will live the message they have received and continue to form their faith in adulthood.
Here, I will propose just a few examples across the lifespan where
developmentally-responsive catechesis, faith formation that takes into account these
“windows of opportunity,” in development, could make a considerable difference.

Attachment to the Faith, The “God Gene,” and the Preschool Years. In 2005, geneticist
Gene Hamer, the director of the Gene Structure and Regulation Unit at the U.S.
National Cancer Institute, proposed that a particular gene, called vesicular
monoamine transporter 2 (VMAT2), predisposes some people to spiritual
experiences (Hamer 56-78). This hypothesis was based, in part, on neurobiological
studies showing differences in the structure of the brains of people who are very
religious and people who are not. The conclusion was that these brain differences
must be caused by genetics. However, further study of the VMAT2 showed that this
gene accounts for less than one percent in the variance of self-transcendence scores
(Zimmer 110-114). Neurosequential brain development offers us an alternative
explanation for why we see brain differences in people who are attached to a faith
and those who are not. The areas of the brain that are most directly involved in
attachment and relationship are growing most rapidly in the first five years of life.
The growing child develops a healthy attachment to his or her primary caretaker(s)
if the child sees that the caretaker is responsive to his or her needs for food,
affection, and comfort. The trust that the child develops for his or her primary
caretaker helps to build the foundation for the individual’s future relationships. If a
child does not develop a healthy attachment in the first few years of life, it might be
possible for this to happen later (for example, in children who are adopted from the
child welfare system after being removed from neglectful or abusive families);
however, the process of attachment becomes more challenging and less efficient in older children, because the period of brain growth for attachment has passed, and these areas of the brain have become less malleable.

If, as noted above, adults in the United States are not attached to their faith, if they have not developed a relationship with Jesus and the Church, perhaps we should take a closer look at the period of time when the attachment and relationship areas of the brain are growing most rapidly. In many parishes, we baptize children when they are infants or toddlers and provide little else in the way of systematic faith formation until the elementary years, with an initial focus on preparing for the sacraments. In the elementary years, the most rapid brain growth is in the areas of the cerebral cortex responsible for learning facts and vocabulary. In our parish programs, children learn many facts about their faith during this time, but many individuals who attend our faith formation programs and children and teens subsequently leave the Church as young adults, and many who stay are not, in the words of Sherry Weddell, “intentional disciples.” How can they learn so much about their faith over the years and still fail to have a real relationship with Christ and the Church? Because they have never developed an attachment to Jesus and the Church. A preschool program that introduces children to Jesus as both God and friend and introduces the parish church as a community of friends, an extended family, would help to fill this need by developing an attachment to the faith at exactly the time that the attachment mechanisms in the brain are growing most rapidly.

*Understanding of Possible Selves and Discernment of Vocations.* An individual's self-concept includes his or her thoughts, feelings, and attitudes about the self. Markus &
Nurius coined the term “possible selves” to refer to the part of our self-concept that is oriented towards the future (954). “Who will I be in the future? What will I be doing?” These questions point to our possible selves.

In the course of development, there are two ages when we children particularly likely to think about our future selves. One is at age 17. At this age, high school is ending, and many people are asking the young adult what he or she will do next: “Will she go to college?” “What kind of job would he like to have?” The other age when children think most about their future selves might come as a surprise to some: age 11. This is a time of rapid physical growth. Children become quite aware that they will not be children forever. Their bodies are changing, and they are becoming young women and men. This leads naturally to the question, “What kind of man (or woman) will I be?”

Knowing that children think so much about their future selves at these two ages gives us two windows of opportunity to talk about vocations, if we want to discuss this topic when it is most relevant and engaging. These two ages – in 5th grade and in 11th grade – are the right times to talk about vocations to the priesthood, religious life, and marriage, and also to discuss “vocation” in general as God’s call in our lives. In a culture where children are so often asked what they want to do when they grow up, the catechist can pose a more meaningful question: “What is God’s plan for your life?” Helping children learn how to discern God’s call is an important part of formation at these ages.

Adolescence, Young Adulthood, and a Sense of Identity and Belonging. Two themes are primary in the psychological lives of adolescents and young adults – individuation
and belonging. Teens and young adults often question, challenge, and even reject identities and norms they feel were thrust upon them by parents and other adults in their lives. This is part of the process known as *individuation*, in which young men and women come to see themselves as independent adults. As the *prefrontal cortex*, the part of the brain responsible for solving complex problems, finishes growing during these years, young women and men want to solve their own problems in their own ways. But even as they struggle to be individuals, teens and young adults have a powerful need for acceptance and belonging. They want to know they are loved for who they are, that they are part of a community, of something larger than themselves.

As parents and catechists, we often worry when adolescents and young adults question and challenge, especially when they are questioning and challenging their Catholic faith. For many individuals, this questioning is simply a way to make the faith their own, to move beyond simple answers that other people gave them and work towards a deeper understanding. Unfortunately, this struggle is often met with anxiety and disapproval, leading teens or young adults to feel they do not belong in the Catholic Church. This intensifies their other primary need (belonging), and they look elsewhere for a place to belong. We might find a different approach more helpful in keeping our young people Catholic. First, we can appreciate that if they are asking questions about their faith, they are engaged. We don’t typically ask questions about things that don’t interest us. Second, we can learn the power and grace of three words that young people need to hear from us: “I don’t know.” We often struggle (or have struggled) with the same issues that are stumbling blocks for
our young people, and it’s important to acknowledge this so they can hear three more words from us, “You still belong.” We can invite young people to continue walking and dialoguing with us as they seek the answers to their questions and doubts, and offer to be resources to them.

*Young Parenthood, Family Restructuring, and the Parish as Extended Family.* As mentioned above, we often offer little for families between baptism and the sacramental years. It’s useful to consider what is happening developmentally for the family at this stage. It’s a truism to say everything changes when you have a child. The things couples do, the places they go, the people they spend time with – everything is rearranged and restructured when the first child is born. At precisely the time that people are ready and willing to completely restructure their priorities and rearrange their lives, the parish often has little to offer. What if we saw baptism as an evangelization moment, a time to partner with parents, to take them by the hand and walk with them? Fewer people live close to extended families than in previous generations. Many parents are seeking community and support in these early parenting years. When they don’t find it at the parish, they find it elsewhere – among the other families at the preschool, ballet classes, etc. By the time we see the families again in elementary school, their plates are full and there is little time to engage with the parish. What if the parish functioned as an extended family? What if families were actively involved from baptism on? Then it wouldn’t be a struggle to get mothers and fathers engaged in elementary school – they would already be engaged.
Conclusion

These are only a few examples of how the structure, content and priorities of our faith formation programs might change if we renewed our efforts to integrate current information about human development with catechesis. Part of the beauty of our Catholic theology is the seamless way in which it can speak to the integrity of the human person – body, mind and spirit. Let us work towards a catechesis that also integrates these aspects of what it means to be human. In doing so, we could change catechesis for generations to come.
Works Cited


About the Author

Dr. Joseph D. White is a clinical child and family psychologist and National Catechetical Consultant for Our Sunday Visitor Publishing and Curriculum. He previously worked as Director of Faith Formation at St. Thomas Aquinas Parish in College Station, Texas, and then spent seven years as Director of Family Counseling and Family Life for the Diocese of Austin. He has taught courses in catechetics and pastoral guidance at the University of Dallas and the University of St. Thomas in Houston.

Dr. White is the author of ten books and numerous articles on catechesis and ministry, including *The Way God Teaches*, *Seven Secrets of Successful Catechists*, and the *Catechist's Companion to the National Directory for Catechesis*. He is co-author of the *Allelu* early childhood religion series, the *Alive in Christ* elementary religion series, and the *Encounter with Christ* sacramental preparation series.

Dr. White has led workshops and talks for catechists and catechetical leaders in over 50 dioceses in the United States, as well as Canada and Japan. He maintains a website for catechists and catechetical leaders at SharingCatholicFaith.com.